

U.S. Patent Appln. Ser. No. 10/625,605
Amendment and Response to Office Action dated May 19, 2005
September 19, 2005
Attorney Docket No. 60783.000005

AMENDMENTS TO THE CLAIMS:

Please cancel claims 1-14 and 16 and amend claims 15, 18 and 28 as set forth below. This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-14 (canceled).

15 (currently amended). A method for forming a plastic container for packaging a hot-filled food product, comprising:

selecting at least one polymer for a plastic container; and

forming the plastic container;

wherein the plastic container comprises:

a mouth;

a bottom surface; and

a container wall between the mouth and the bottom surface,

wherein prior to hot-filling of the container with a food product, the bottom surface is outwardly flexed; wherein further one of the outwardly flexed bottom surface or the container wall is configured to flex flexes inward into the cavity of the plastic container during cooling of the plastic container following hot-filling of the container with food product;

wherein further the inward flexing of the bottom surface [[of]] or the container wall reduces a pressure differential between the inside of the container and atmospheric pressure when either the container is hot-filled with food product or when the container is

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transported from a locale of lower atmospheric pressure to higher atmospheric pressure;

and

wherein further the non-flexing surface maintains the same form from prior to hot-filling or transport, wherein further the flexing surface maintains its inwardly flexed configuration following cooling of the hot-filled container.

16 (canceled).

17 (original). The method of claim 15, wherein forming the container comprises extrusion, vacuum forming, injection molding, blister packaging, melt phase forming or blow molding.

18 (currently amended). A method of manufacturing a plastic container with a selectively deformable surface, comprising:

selecting at least one polymer;

heating the at least one polymer to its VICAT temperature; and

thermoforming a container from the heated polymer;

wherein the plastic container comprises:

a mouth;

a bottom surface; and

a container wall between the mouth and the bottom surface,

wherein prior to hot-filling of the container with a food product, the bottom

surface is outwardly flexed; wherein further one of the outwardly flexed bottom surface
or the container wall is configured to flex flexes inward into the cavity of the plastic

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container during cooling of the plastic container following hot-filling of the container with food product:

wherein further the inward flexing of the bottom surface [[of]] or the container wall reduces a pressure differential between the inside of the container and atmospheric pressure when either the container is hot-filled with food product or when the container is transported from a locale of lower atmospheric pressure to higher atmospheric pressure;
[[and]]

wherein further the non-flexing surface maintains the same form from prior to hot-filling or transport, and wherein further the flexing surface maintains its inwardly flexed configuration following cooling of the hot-filled container.

19 (original). The method of claim 18, wherein the thickness of the container walls decreases from a point substantially at the mouth to a point substantially at the bottom surface.

20 (original). The method of claim 18, wherein the bottom surface flexes inward into the container cavity.

21 (original). The method of claim 20, wherein the circumference of the mouth is greater than the circumference of the bottom surface.

22 (original). The method of claim 21, wherein the plastic comprises a plastic suitable for solid phase pressure forming.

23 (original). The method of claim 22, wherein the plastic further comprises polypropylene.

24 (original). The method of claim 23, wherein the plastic further comprises a barrier enhancement agent.

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25 (original). The method of claim 24, wherein the barrier enhancement agent comprises

ethylene vinyl acetate-vinyl alcohol.

26 (original). The plastic container of claim 25, wherein the plastic further comprises an

adhesive suitable for solid phase pressure forming.

27 (original). The plastic container of claim 26, wherein the adhesive comprises an antioxidant

28 (currently amended). The plastic container of claim 22, wherein the plastic container is

formed from a plastic sheet comprising up to about 15 volume % ethylene vinyl acetate-vinyl alcohol, about 80 to about 90 volume % polypropylene and about [[15]] 5 to about [[20]] 10 volume % adhesive.

29 (original). The plastic container of claim 18, wherein the plastic container is formed from a

plastic sheet having one or more layers, and wherein further the thickness of the container walls are about 70-80 volume % of the thickness of the plastic sheet at a location substantially adjacent to the container mouth and about 20-40 volume % of the sheet at a location substantially adjacent to the bottom surface, and the thickness of the bottom surface is about 15-20 volume % of the thickness of the plastic sheet.

30 (original). The plastic container of claim 29, wherein the container wall thickness uniformly

decreases from a location substantially adjacent to the container mouth to a point substantially adjacent to the bottom surface.

31 (original). The plastic container of claim 30, wherein the container walls are about 0.7 mm thick at a location substantially adjacent to the container mouth and about 0.28 mm thick

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at a point substantially adjacent to the bottom surface, and the thickness of the bottom surface is about 0.16 mm.